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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,489	08/31/2000	Youqi Wang	SMX 3083.1	3644

321 7590 02/25/2003

SENNIGER POWERS LEAVITT AND ROEDEL  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 02/25/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/652,489

Applicant(s)

WANG ET AL.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 12,14-18 and 24-57 is/are pending in the application.
- 4a) Of the above claim(s) 18,30,37 and 42-49 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12,14-17,24,25 and 29 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 26-28, 32, 33, 39, 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The corrected or substitute drawings were received on 12/9/2002. These drawings are acknowledged.

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: inlet in claim 16. The specification refers to the “inlet” of claim 16 as “holes 154.” Correction should be made since the “inlet” of claim 16 is confused with “inlet 132.”

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 26-28, 34, 35, 52-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Referring to claims 52-56, the word “plug” is confusing. The specification refers to the “inner body” and “plug” as interchangeable terms for a single element. It is highly unclear if Applicant means the “inner body,” especially when “plug” does not appear to describe the characteristics of the element the Applicant is referring to.
5. Referring to claims 26-28, 34, 35, 57, it appears the overflow vent passage and vent passage are the same elements but characterized as different elements in different embodiments.

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No single figure, which represents different embodiments of the invention, show both an overflow vent passage and vent passage. Corrections should be made. Examiner has interpreted the two elements as the same, just differently named in different figures.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 31 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,607,094 to Beer.

Referring to claims 31 and 50, Beer discloses a sampling probe capable of delivering a reactant to a substance deposited on a substrate to form a reaction product and for transporting the reaction product to a product analyzer for analysis (see FIGURE; COL. 1, lines 56-63). The probe comprises an inner body and an outer body (11) having an inner cavity sized and shaped for receiving the inner body (see FIGURE). The inner body includes a tip with a recess for engaging the substrate and receiving a portion of the reaction product (see FIGURE; COL. 1, lines 56-63; COL. 2, lines 36-51). A reactant delivery passage (26) extends through the probe to an outlet (27) at the tip for delivering reactant to the substance on the substrate to form the reaction product (see FIGURE; COL. 2, lines 66-75). The reactant delivery passage (26) has an annular section defined by an exterior surface of the inner body and an interior surface of the outer body (see

FIGURE). A product sampling passage (6) extends from the recess adapted for connection to the product analyzer for transporting at least the portion of the reaction product to the product analyzer (see FIGURE; COL. 2, lines 36-51). Therefore, Beer includes all the limitations in claims 31 and 50.

8. Claims 31, 36, 38, 41, 50-57 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,959,297 to Weinberg et al.

Referring to claims 31, 36, 38, 41, 50-57, Weinberg et al. disclose a sampling probe capable of delivering a reactant to a substance deposited on a substrate to form a reaction product and for transporting the reaction product to a product analyzer for analysis (see FIGS. 8-10). The probe comprises an inner body and an outer body having an inner cavity sized and shaped for receiving the inner body (see FIGS. 8-10). The inner body includes a tip with a recess for engaging the substrate and receiving a portion of the reaction product (see FIGS. 8-10; COL. 15, lines 30-67). A reactant delivery passage (904,902) extends through the probe to an outlet at the tip for delivering reactant to the substance on the substrate to form the reaction product (see FIGS. 8-10; COL. 15, lines 30-67). Since reactants are delivered through two passages (904,902), the junction of the two passages (904,902) is the mixing chamber in which the reactants mingle. A product sampling passage (906) extends from the recess adapted for connection to the scanning mass spectrometer for transporting at least the portion of the reaction product to the scanning mass spectrometer (see FIGS. 8-10; COL. 15, lines 30-67). An overflow vent or a vent passage (1004) extends through the outer body from an inlet (908) positioned outside the recess of the tip for removing reactant from an area outside the recess (see

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FIGS. 8-10; COL. 15, lines 30-67). A cover is mounted on the body covering the plug and forming an upper recess between the cover and lower end face of the plug, since reactants flow through the cover and plug from a reactant source (see FIGS. 8-10). There is a barrier surrounding the tip and disposed outside the annular recess to inhibit contamination of adjacent substances on the substrate (see FIGS. 9 and 10). Therefore, Weinberg et al. includes all the limitations in claims 31, 36, 38, 41, 50-57.

***Allowable Subject Matter***

9. Claims 12, 14-17, 24, 25, 29 allowed.
10. Claims 26-28, 32, 33, 39, 40 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
11. The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or suggest the invention with two passages and a resiliently compliant element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

12. Applicant's arguments with respect to claims 12, 14-17, 24-29, 31-36, and 38-41 have been considered but are moot in view of the new ground(s) of rejection.

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13. Applicant's arguments filed 12/9/2002 have been fully considered but they are not persuasive.

Applicant argues that Beer does not show a resiliently compliant element connecting a tip to an inner body. Examiner points out that this is a newly added limitation to claim 12.

Applicant points out that Beer does not show a reaction product sampling passage for transporting at least a portion of the reaction product to a product analyzer. Applicant argues that Beer's cannula 6 is not a "reaction product sampling passage." Rather, cannula 6 is used to draw liquid sample from the test tube in the first series 1. Applicant further argues that Beer does not state that the liquid sample is a reaction product. Examiner points out that the reaction product sampling passage is merely a statement of intended use. The passage is used for sampling reaction product. It does not matter if the passage is used for sample reaction product or sucking reactants, especially when the reaction product has not been positively defined as a limitation or element. Since both Weinstein and Beer have the sufficient amount of passages, one can be the "reaction product sampling passage," and one can be the "reactant delivery passage." Examiner points out that the passage from transporting at least a portion of the reaction product to a product analyzer is also a statement of intended use. The "product analyzer" has not been made a positive limitation or element in the claims.

Applicant argues that Beer does not disclose an outlet positioned at the tip, in addition to a tip including at least one opening permitting reactants to flow into the recess. Examiner points out that both passages have tips with outlets, and they have



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openings in order for fluids to be drawn in or withdrawn. At the tip there is an outlet with an opening to provide for the delivery of fluids.

Applicant argues that the aperture (18) in Beer merely vents air pressure on one side of an actuating piston. As noted before, the method limitation is merely a statement of intended use and does not have patentable weight in apparatus/device claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Elizabeth Quan  
Examiner  
Art Unit 1743

eq  
February 24, 2003

Application/Control Number: 09/652,489

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